



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

23373 7590 08/18/2010

SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

PHAN, TUANKHANH D

ART UNIT

PAPER NUMBER

2163

DATE MAILED: 08/18/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/786,365

02/26/2004

Hyun-sik Yoon

Q79524

3411

TITLE OF INVENTION: NETWORK MANAGEMENT METHOD FOR WIRELESS TRANSMISSION/RECEPTION OF DATA STREAMS, AND NETWORK SYSTEM AND APPARATUS EMPLOYING THE SAME

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	11/18/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

23373 7590 08/18/2010

**SUGHRUE MION, PLLC**  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/786,365 02/26/2004 Hyun-sik Yoon Q79524 3411

TITLE OF INVENTION: NETWORK MANAGEMENT METHOD FOR WIRELESS TRANSMISSION/RECEPTION OF DATA STREAMS, AND NETWORK SYSTEM AND APPARATUS EMPLOYING THE SAME

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
-------------	--------------	---------------	---------------------	----------------------	------------------	----------

nonprovisional NO \$1510 \$300 \$0 \$1810 11/18/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
----------	----------	----------------

PHAN, TUANKHANH D 2163 709-223000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,365	02/26/2004	Hyun-sik Yoon	Q79524	3411
23373	7590	08/18/2010	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			PHAN, TUANKHANH D	
			ART UNIT	PAPER NUMBER
			2163	
DATE MAILED: 08/18/2010				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 914 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 914 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/786,365	YOON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tuan-Khanh Phan	2163	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/01/2010.
2. ☒ The allowed claim(s) is/are 1,5-12,15,17-25,27 and 29-35.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☒ Some\*    c) ☐ None    of the:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

/Tuan-Khanh Phan/  
Examiner, Art Unit 2163

/don wong/  
Supervisory Patent Examiner, Art Unit 2163

### **EXAMINER'S AMENDMENT**

This action is responsive to the following communication: Appeal Brief filed 6/01/20010.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Diallo Crenshaw on 8/09/2010.

The application has been amended as follows:

Claim 1. (Currently Amended): A network apparatus for wireless transmission/reception of data streams having management information on wireless channels used for the data streams transmitted in an audio/video (A/V) wireless network which comprises a plurality of data streaming servers and data streaming clients,, said network apparatus comprising:

a processor [[operable]] to process an event, upon occurrence of the event in the network, by extracting apparatus information for the apparatuses within the network from the management information and specifying a second data streaming server different from a first data streaming server according to the extracted information, and by transmitting an event response signal comprising the management information corresponding to the event or by updating the management information corresponding

Art Unit: 2163

to the event, thereby generating, in the second data- streaming server, a module that manages the wireless channels for the data streams transmitted in the wireless manner among the apparatuses in the network, wherein only one channel is allocated to transfer a data stream for the second data streaming server by the managing module, and dummy data transmitted during the data stream is not transmitted in the allocated channel, wherein the management information comprises information on empty channels that are not used, and wherein the management information comprises information on connection states of the apparatuses in the network according to an allocated wireless channel.

Claim 2. (Canceled).

Claim 4. (Canceled).

Claim 7. (Currently Amended): The apparatus as claimed in claim 1, wherein the event comprises an allocated channel request event [[operable]] to request a new allocated channel.

Claim 8. (Currently Amended): The apparatus as claimed in claim 1, wherein the event comprises allocated channel sharing request event [[operable]] to request sharing of a currently allocated channel.

Claim 9. (Currently Amended): The apparatus as claimed in claim 1, wherein the event comprises a network participation request event [[operable]] to indicate participation in an already established network.

Claim 10. (Currently Amended): The apparatus as claimed in claim 1, wherein the event comprises an allocated channel releasing request event `[[operable]]` to indicate releasing of an already established, allocated channel.

Claim 11. (Currently Amended): The apparatus as claimed in claim 1, wherein the event comprises a network disconnection request event `[[operable]]` to indicate disconnection from an already established network.

Claim 12. (Currently Amended): A data-streaming server in a network apparatus for wireless transmission/reception of data streams, which extracts apparatus information on apparatuses in an audio/video (A/V) wireless network which comprises a plurality of data streaming servers and data streaming clients, by a first data-streaming server, from management information on wireless channels available for data streams transmitted among the apparatuses in the network, designates a second data-streaming server different from the first data-streaming server, depending on the extracted information, and generates, in the second data-streaming server, a module comprising management information on the wireless channels used for the data streams transmitted in a wireless manner among the apparatuses in the network upon occurrence of an event in the network, wherein the module processes the event by one of transmitting an event response signal comprising the management information corresponding to the event and by updating the management information corresponding to the event, thereby managing the wireless channels for the data streams transmitted in the wireless manner among the apparatuses in the network, wherein only one channel is allocated to transfer a data stream for a second data streaming server by a

Art Unit: 2163

managing module, wherein dummy data transmitted during the data stream is not transmitted in the allocated channel, wherein the management information comprises information on empty channels that are not used, wherein the management information comprises information on connection states of the apparatus in the network according to an allocated wireless channel, and wherein the server comprises: a control interface adapted to transmit and receive control signals to and from a plurality of apparatuses in a network via a wired/wireless communication network;

a channel selection unit operable to select a channel available in the network;

and

a wireless interface adapted to transmit data streams in the network.

Claim 14. (Canceled).

Claim 16. (Canceled).

Claim 19. (Currently Amended): The data-streaming server as claimed in claim 12, wherein the event comprises an allocated channel request event [[operable]] to request a new allocated channel.

Claim 20. (Currently Amended): The data-streaming server as claimed in claim 12, wherein the event comprises an allocated channel sharing request event [[operable]] to request sharing of a currently allocated channel.

Claim 21. (Currently Amended): The data-streaming server as claimed in claim 12, wherein the event comprises a network participation request event [[operable]] to indicate participation in an already established network.



Claim 22. (Currently Amended): The data-streaming server as claimed in claim 12, wherein the event comprises an allocated channel releasing request event [[operable]] to indicate releasing of an already established, allocated channel.

Claim 23. (Currently Amended): The data-streaming server as claimed in claim 12, wherein the event comprises a network disconnection request event [[operable]] to indicate disconnection from an already established network.

Claim 24. (Currently Amended): A data-streaming client in a network apparatus for wireless transmission/reception of data streams, which extracts apparatus information on apparatuses in an audio/video (A/V) wireless network which comprises a plurality of data streaming servers and data streaming clients, by a first data-streaming server, from management information on wireless channels available for data streams transmitted among the apparatuses in the network, designates a second data-streaming server different from the first data-streaming server, depending on the extracted information, and generates, in the second data-streaming server, a module comprising management information on the wireless channels used for the data streams transmitted in a wireless manner among the apparatuses in the network upon occurrence of an event in the network, wherein the module processes the event by one of transmitting an event response signal comprising the management information corresponding to the event and by updating the management information corresponding to the event, thereby managing the wireless channels for the data streams transmitted in the wireless manner among the apparatuses in the network, wherein only one channel is allocated to transfer a data stream for a second data streaming server by a

Art Unit: 2163

managing module, wherein dummy data transmitted during the data stream is not transmitted in the allocated channel, wherein the management information comprises information on empty channels that are not used, wherein the management information comprises information on connection states of the apparatuses in the network according to an allocated channel, and wherein the client comprises: a control interface adapted to transmit and receive control signals to and from a plurality of apparatuses in a network via a wired/wireless communication network;

a channel selection unit operable to select a channel available in the network;

and

a wireless interface adapted to receive data streams in the network.

Claim 25. (Currently Amended): A network management method for wireless transmission/reception of a data stream, comprising:

extracting apparatus information on apparatuses in an audio/video (A/V) wireless network which comprises a plurality of data streaming servers and data streaming clients, by a first data-streaming server, from management information on wireless channels available for data streams transmitted among the apparatuses in the network;

designating a second data-streaming server different from the first data-streaming server, depending on the extracted information; and

generating, in the second data-streaming server, a module comprising management information on the wireless channels used for the data streams transmitted in a wireless manner among the apparatuses in the network upon occurrence of an event in the network, wherein the module processes the event by one

Art Unit: 2163

of transmitting an event response signal comprising the management information corresponding to the event and by updating the management information corresponding to the event, thereby managing the wireless channels for the data streams transmitted in the wireless manner among the apparatuses in the network, wherein only one channel is allocated to transfer a data stream for a second data streaming server by a managing module, wherein dummy data transmitted during the data stream is not transmitted in the allocated channel, wherein the management information comprises information on empty channels that are not used, wherein the management information comprises information on connection states of the apparatuses in the network according to an allocated channel.

Claim 26. (Canceled).

Claim 28. (Canceled).

Claim 31. (Currently Amended): The method as claimed in claim 25, wherein the event comprises an allocated channel request event [[operable]] to request newly allocated channel.

Claim 32. (Currently Amended): The method as claimed in claim 25, wherein the event comprises an allocated channel sharing request event [[operable]] to request sharing of a currently allocated channel.

Claim 33. (Currently Amended): The method as claimed in claim 25, wherein the event comprises a network participation request event [[operable]] to indicate participation in an already established network.

Claim 34. (Currently Amended): The method as claimed in claim 25, wherein the event comprises an allocated channel releasing request event [[operable]] to indicate releasing of an already established, allocated channel.

Claim 35. (Currently Amended): The method as claimed in claim 25, wherein the event comprises a network disconnection request event [[operable]] to indicate disconnection from an already established network.

***Allowable Subject Matter***

Claims 1, 5-12, 15, 17-25, 27, and 29-35 are allowed.

The following is an examiner's statement of reasons for allowance: Independent claims 1, 12, 24 and 25, when considered as a whole, are allowable over the prior arts of record. Specifically, prior arts of record fail to clearly teach or fairly suggest the combination of following limitations:

extracting apparatus information for the apparatuses within the network from the management information and specifying a second data streaming server different from a first data streaming server according to the extracted information, and by transmitting an event response signal comprising the management information corresponding to the event or by updating the management information corresponding to the event, thereby generating, in the second data- streaming server, a module that manages the wireless channels for the data streams transmitted in the wireless manner among the apparatuses in the network, wherein only one channel is allocated to transfer a data stream for the second data streaming server by the managing module, and dummy data transmitted during the data stream is not transmitted in the allocated channel, wherein

Art Unit: 2163

the management information comprises information on empty channels that are not used, and wherein the management information comprises information on connection states of the apparatuses in the network according to an allocated wireless channel.

The dependent claims further add limitations to the allowable subject matter of the corresponding independent claims; thus are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan Khanh Phan whose telephone number is (571)270-3047. The examiner can normally be reached on 4/5/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2163

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TKP

/don wong/

Supervisory Patent Examiner, Art Unit 2163